Detailed Specification

Whitley H20 Workstation

Statements in red in the Detailed Specification refer to features and benefits which we believe are exclusive to Don Whitley Scientific.

1. **Introduction**
   The Whitley H20 Hypoxystation is the smallest of our workstations developed for the study of cells under hypoxic and anoxic atmospheric conditions.

2. **Capacity**
   The workstation has a 214 litre main chamber.

3. **Construction Material**
   The chamber is manufactured from a combination of 6mm and 10mm acrylic for structural stiffness and optical clarity. During fabrication, the structure is annealed at all critical stages. The annealing process relieves the stresses induced in the acrylic structure as a natural consequence of machining, forming and polishing. Other workstation components are manufactured from a variety of materials including mild steel, aluminium, stainless steel, brass and cast polyurethane. Each material in and industrial process has been carefully selected according to the function of the component.

4. **Size**
   Physical dimensions: 810mm x 635mm x 760mm (L x H x D).
   Incubation area: 650mm x 510mm x 240mm (L x H x D).

5. **Gas Requirements**
   A single cylinder of pre-mixed gas must be used. No gas mixing capability.

6. **Gas Alarms and Control Systems**
   All alarms and errors are displayed clearly on the touch screen panel. Low gas pressure will be displayed on the touch screen and a buzzer will sound. Inner and outer airlock door status is displayed on the touch screen.

7. **System Operation:**
   7.1 Humidity Control
   The H20 is fitted with a fully automatic de-humidity control system that does not require any operator intervention. A pump controlled by a timer opens regularly for a set duration, allowing water to pass to an external reservoir and evaporate. The reservoir is fitted with a biocide-treated filter. This system ensures effective removal

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of any excess moisture in the chamber. The humidity level is controlled by a humidity sensor located in the chamber, connected to a cooling fan.

7.2 Temperature Control

The operating temperature of the workstation can be set between 5°C above ambient and 45°C by adjusting the set point value. Detailed instructions are contained within the Whitley User Manual, which is supplied to you at the time of installation.

7.3 Sample Manipulation

All Don Whitley Scientific Hypoxic/Anoxic workstations are designed to provide generous working areas. Advanced ergonomic design ensures user comfort. The oval shape of the patented portholes allows greater freedom of movement and operator comfort compared with the use of conventional circular portholes.

8. Sample Transfer

Our patented porthole system provides both a means of sample transfer and operator entry and exit. Each porthole can be used to transfer samples at the same time as an operator's arms are inserted or withdrawn from the cabinet. Don Whitley Scientific recommends the evacuation and replacement sequence is performed twice.

We offer an option such that with a single footswitch operation an automatic cycle evacuates the sleeves twice and then refills them with gas from the chamber. This ensures that less experienced users correctly operate the glove ports and use gas efficiently.

The H20 Hypoxystation is also fitted with a single sample entry system, enabling small flasks and similar-sized items to be introduced into the workstation independently of the ports.

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